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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,724	09/15/2003	Sachin Garg	630-044US	1503

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EXAMINER	
SIKRI, ANISH	

ART UNIT	PAPER NUMBER
2143	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/662,724	GARG ET AL.	
	Examiner	Art Unit	
	Anish Sikri	2143	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/15/2003, 12/27/04, 3/10/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement submitted on 9/15/2003, 12/27/2004, and 3/10/2006 been considered by the Examiner and made of record in the application file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims **1-12** are rejected under 35 U.S.C. 102(b) as being unpatentable over Lyon et al (US Pat 6,333,917).

Consider **Claim 1**, Lyon et al clearly discloses the method of receiving a first plurality of protocol data units at a first input (Lyons et al Col 3, Lines 59-62) of a protocol-data-unit excisor (Lyons et al, Col 3 Line 58, Col 4 Lines 1-46, Col 6 Lines 40-43, Col 8, Lines 65-67, Col 9, Lines 1-18), wherein all of the protocol data units received at said first input (Lyons et al Col 3, Lines 59-62) are en route to a first congestible node (Lyons et al, Col 6, Lines 7-19); receiving at a said protocol-data-unit excisor (Lyons et al, Col 3 Line 58) a metric of a queue (Lyons et al, Col 14, Lines 55-65) in a said first congestible node (Lyons et al, Col 6, Lines 7-19); and selectively dropping (Lyons et al, Col 6, Lines 25-30), at said protocol-data-unit excisor (Lyons et al, Col 3 Line 58), one or more of said first plurality of protocol data units based on said metric of said queue

(Lyons et al, Col 14, Lines 55-65) in said first congestible node (Lyons et al, Col 6, Lines 7-19). Lyon et al clearly shows on how packets are transmitted over the network from multiple number of sources while on route to the node(s), during the transmission the packets go through the switch before reaching the node(s), and within the switch, it calculates based on metrics on whether to drop packets or allow packets to avoid traffic congestion at the node(s).

Consider **Claim 2**, Lyon et al clearly discloses the method of claim 1 wherein said protocol data unit excisor (Lyons et al, Col 3 Line 58, Col 4 Lines 1-46, Col 6 Lines 40-43, Col 8, Lines 65-67, Col 9, Lines 1-18) decides whether to drop a protocol data unit (Lyons et al, Col 6, Lines 25-30) based on Random Early Detection (Lyons et al, Col 1, Line 10, Col 6, Lines 50-60). Lyon et al clearly shows on the use of Random Early Detection in its switch for controlling congestion of packets passing through the network.

Consider **Claim 3**, Lyon et al clearly discloses the method of claim 1 wherein receiving a second plurality of protocol data units at a second input (Lyons et al Col 3, Lines 59-62) of said protocol data unit excisor (Lyons et al, Col 3 Line 58, Col 4 Lines 1-46, Col 6 Lines 40-43, Col 8, Lines 65-67, Col 9, Lines 1-18), wherein all of the protocol data units received at said second input (Lyons et al Col 3, Lines 59-62) are en route to a second congestible node (Lyons et al, Col 6, Lines 7-19); receiving at said protocol data unit excisor (Lyons et al, Col 3 Line 58) a metric of a queue (Lyons et al, Col 14,

Lines 55-65) in a said second congestible node (Lyons et al, Col 6, Lines 7-19); and selectively dropping (Lyons et al, Col 6, Lines 25-30), at said protocol data unit excisor (Lyons et al, Col 3 Line 58), one or more of said second plurality of protocol data units based on said metric of said queue (Lyons et al, Col 14, Lines 55-65) in said second congestible node (Lyons et al, Col 6, Lines 7-19). Lyon et al clearly shows on how packets are transmitted over the network from multiple number of sources while on route to the respective node(s), during the transmission the packets go through the switch before reaching the node(s), and within the switch, it calculates based on metrics on whether to drop packets or allow packets to avoid traffic congestion at the node(s).

Consider **Claim 4**, Lyon et al clearly discloses protocol data unit excisor (Lyons et al, Col 3 Line 58) comprising: a first input (Lyons et al Col 3, Lines 59-62) for receiving a first plurality of protocol data units, wherein all of the protocol data units received at said first input (Lyons et al Col 3, Lines 59-62) are en route to a first congestible node (Lyons et al, Col 6, Lines 7-19) a second input (Lyons et al Col 3, Lines 59-62) for receiving a metric of a queue (Lyons et al, Col 14, Lines 55-65) in a said first congestible node (Lyons et al, Col 6, Lines 7-19); and a processor for selectively dropping (Lyons et al, Col 6, Lines 25-30), one or more of said first plurality of protocol data units based on said metric of said queue (Lyons et al, Col 14, Lines 55-65) in said first congestible node (Lyons et al, Col 6, Lines 7-19). Lyon et al clearly shows on how packets are transmitted over the network from multiple number of sources while on route to the respective node(s), during the transmission the packets go

through the switch (protocol data unit excisor) before reaching the node(s), and within the switch, it calculates based on metrics on whether to drop packets or allow packets to avoid traffic congestion at the node(s).

Consider **Claim 5**, Lyon et al clearly discloses the protocol data unit excisor (Lyons et al, Col 3 Line 58) of claim 4 wherein said protocol-data-unit excisor (Lyons et al, Col 3 Line 58) decides whether to drop a protocol data unit (Lyons et al, Col 6, Lines 25-30) based on Random Early Detection (Lyons et al, Col 1, Line 10, Col 6, Lines 50-60). Lyon et al clearly shows on the use of Random Early Detection in its switch for controlling congestion of packets passing through the network.

Consider **Claim 6**, Lyon et al clearly discloses the protocol-data-unit excisor (Lyons et al, Col 3 Line 58) of claim 4 further comprising: a third input (Lyons et al Col 3, Lines 59-62) for receiving a second plurality of protocol data units, wherein all of the protocol data units received at said third input (Lyons et al Col 3, Lines 59-62) are en route to a second congestible node (Lyons et al, Col 6, Lines 7-19); a fourth input receiver (Lyons et al Col 3, Lines 59-62) for receiving a metric of a queue (Lyons et al, Col 14, Lines 55-65) in a said second congestible node (Lyons et al, Col 6, Lines 7-19); and a wherein said processor is also for selectively dropping (Lyons et al, Col 6, Lines 25-30), one or more of said second plurality of protocol data units based on said metric of said queue (Lyons et al, Col 14, Lines 55-65) in said second congestible node (Lyons et al, Col 6, Lines 7-19). Lyon et al clearly shows on how packets are transmitted over

the network from multiple number of sources while on route to the respective node(s), during the transmission the packets go through the switch (protocol data unit excisor) before reaching the node(s), and within the switch, it calculates based on metrics on whether to drop packets or allow packets to avoid traffic congestion at the node(s).

Consider **Claim 7**, Lyon et al clearly discloses the method of receiving a first plurality of protocol data units at a first input (Lyons et al Col 3, Lines 59-62) of a protocol-data-unit excisor (Lyons et al, Col 3 Line 58, Col 4 Lines 1-46, Col 6 Lines 40-43, Col 8, Lines 65-67, Col 9, Lines 1-18), wherein all of the protocol data units received at said first input (Lyons et al Col 3, Lines 59-62) are en route to a first congestible node (Lyons et al, Col 6, Lines 7-19); estimating in said protocol-data-unit excisor (Lyons et al, Col 3 Line 58) a first metric of a first queue (Lyons et al, Col 14, Lines 55-65) of protocol data units in said first congestible node (Lyons et al, Col 6, Lines 7-19) based on said first plurality of protocol data units; and selectively dropping (Lyons et al, Col 6, Lines 25-30), at said protocol-data-unit excisor (Lyons et al, Col 3 Line 58), one or more of said first plurality of protocol data units en route to said first congestible node (Lyons et al, Col 6, Lines 7-19) based on said first metric (Lyons et al, Col 14, Lines 55-65). Lyon et al clearly shows the method on how packets are transmitted over the network from multiple number of sources while on route to the respective node(s), during the transmission the packets go through the switch (protocol data unit excisor) before reaching the node(s), and within the switch, it calculates based on metrics on whether to drop packets or allow packets to avoid traffic congestion at the node(s).

Consider **Claim 8,** Lyon et al clearly discloses the method of claim 7 wherein said protocol-data-unit excisor (Lyons et al, Col 3 Line 58, Col 4 Lines 1-46, Col 6 Lines 40-43, Col 8, Lines 65-67, Col 9, Lines 1-18) decides whether to drop a protocol data unit (Lyons et al, Col 6, Lines 25-30) based on Random Early Detection (Lyons et al, Col 1, Line 10, Col 6, Lines 50-60). Lyon et al clearly shows on the use of Random Early Detection in its switch for controlling congestion of packets passing through the network.

Consider **Claim 9**, Lyon et al clearly discloses the method of claim 7 further comprising receiving a second plurality of protocol data units at a second input (Lyons et al Col 3, Lines 59-62) of said protocol data unit excisor (Lyons et al, Col 3 Line 58, Col 4 Lines 1-46, Col 6 Lines 40-43, Col 8, Lines 65-67, Col 9, Lines 1-18), wherein all of the protocol data units received at said second input (Lyons et al Col 3, Lines 59-62) are en route to a second congestible node (Lyons et al, Col 6, Lines 7-19); estimating in said protocol data unit excisor (Lyons et al, Col 3 Line 58) a second metric of a second queue (Lyons et al, Col 14, Lines 55-65) of protocol data units in said second congestible node (Lyons et al, Col 6, Lines 7-19) based on said second plurality of protocol data units; and selectively dropping (Lyons et al, Col 6, Lines 25-30), at said protocol data unit excisor (Lyons et al Col 3, Lines 59-62), a one or more of said second plurality of protocol data units en route to said second congestible node (Lyons et al, Col 6, Lines 7-19) based on said second metric (Lyons et al, Col 14, Lines 55-65). Lyon

et al clearly shows the method on how packets are transmitted over the network from multiple number of sources while on route to the respective node(s), during the transmission the packets go through the switch (protocol data unit excisor) before reaching the node(s), and within the switch, it calculates based on metrics on whether to drop packets or allow packets to avoid traffic congestion at the node(s).

Consider **Claim 10**, Lyon et al clearly discloses a protocol-data-unit excisor (Lyons et al, Col 3 Line 58) comprising: a first input (Lyons et al Col 3, Lines 59-62) for receiving a first plurality of protocol data units, wherein all of the protocol data units received at said first input (Lyons et al Col 3, Lines 59-62) are en route to a first congestible node (Lyons et al, Col 6, Lines 7-19); and a processor for estimating a first metric of a first queue of protocol data units in said first congestible node (Lyons et al, Col 6, Lines 7-19) based on said first plurality of protocol data units, and for selectively dropping (Lyons et al, Col 6, Lines 25-30) one or more of said first plurality of protocol data units en route to said first congestible node (Lyons et al, Col 6, Lines 7-19) based on said first metric (Lyons et al, Col 14, Lines 55-65). Lyon et al clearly shows the method on how packets are transmitted over the network from multiple number of sources while on route to the respective node(s), during the transmission the packets go through the switch (protocol data unit excisor) before reaching the node(s), and within the switch, it calculates based on metrics on whether to drop packets or allow packets to avoid traffic congestion at the node(s).

Consider **Claim 11**, Lyon et al clearly discloses the method of claim 10 wherein protocol data unit excisor (Lyons et al, Col 3 Line 58, Col 4 Lines 1-46, Col 6 Lines 40-43, Col 8, Lines 65-67, Col 9, Lines 1-18) decides whether to drop a protocol data unit (Lyons et al, Col 6, Lines 25-30) based on Random Early Detection (Lyons et al, Col 1, Line 10, Col 6, Lines 50-60). Lyon et al clearly shows on the use of Random Early Detection in its switch for controlling congestion of packets passing through the network.

Consider **Claim 12**, Lyon et al clearly discloses the protocol-data-unit excisor (Lyons et al, Col 3 Line 58, Col 4 Lines 1-46, Col 6 Lines 40-43, Col 8, Lines 65-67, Col 9, Lines 1-18) of claim 10 further comprising: a second input (Lyons et al Col 3, Lines 59-62) for receiving a second plurality of protocol data units, wherein all of the protocol data units received at said second input (Lyons et al Col 3, Lines 59-62) are en route to a second congestible node (Lyons et al, Col 6, Lines 7-19); and a processor for estimating a second metric of a second queue (Lyons et al, Col 14, Lines 55-65) of protocol data units in said second congestible node (Lyons et al, Col 6, Lines 7-19) based on said second plurality of protocol data units, and for selectively dropping (Lyons et al, Col 6, Lines 25-30) one or more of said second plurality of protocol data units en route to said second congestible node (Lyons et al, Col 6, Lines 7-19) based on said second metric (Lyons et al, Col 14, Lines 55-65). Lyon et al clearly shows the method on how packets are transmitted over the network from multiple number of sources while on route to the respective node(s), during the transmission the packets go through the switch (protocol data unit excisor) before reaching the node(s), and within

the switch, it calculates based on metrics on whether to drop packets or allow packets to avoid traffic congestion at the node(s).

Response to Arguments

Applicant's arguments filed on 7/24/07 have been fully considered but they are not persuasive.

In response to applicant's argument that in claims **1, 4, 7, 10**, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Applicant argues because of reliance on an argument that Lyon et al does not disclose the method/unit described in claims **1, 4, 7 and 10**. Applicant states that the method comprises "***receiving a first plurality of protocol data units at a first input of a protocol-data-unit excisor, wherein all of the protocol data units received at said first input are en route to a first congestible node...***" Applicant argues that the protocol-data-unit excisor does not perform a switching function on the protocol data units that arrive at the input.

Applicants own drawings in the application clearly show the use of a switching component with the use of protocol data excisor in the application (Garg et al, Fig 2, Fig 3, Fig 4, Fig 7, Fig 8, Fig 9,

Please refer to the reference cited by the Examiner (Lyon et al, US Pat 6,333,917).

Further more, the reference Lyon et al (US Pat 6,333,917) clearly shows on the use of a protocol-data-unit excisor, and it is not necessary for the unit to perform switching when transmitting data protocol units to the congestible nodes, as it can send the data protocol units without the aid of switching (Lyons et al, Col 3 Line 58, Col 4 Lines 1-46, Col 6 Lines 40-43, Col 8, Lines 65-67, Col 9, Lines 1-18).

Lyon et al also discloses where the switching fabric along with the line card which aids in data protocol unit transmission (Lyon et al, Col 6 Lines 40-60). The line card can be used in conjunction as a protocol-data excisor.

Lyon et al also discloses the use of marking rate generator which can also be used also as a protocol-data excisor unit, which receives data protocol unit, and this generator decides whether the packets get dropped or tagged for passing through the network (Lyon et al, Col 8 Lines 60-67, Col 9, Lines 1-18).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anish Sikri whose telephone number is 571-270-1783. The examiner can normally be reached on 8am - 5pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anish Sikri
a.s.

September 19, 2007

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